

**In the Claims:**

Please cancel all the claims in the International application, without prejudice, and replace with new claims 26-50, as follows:

1-25. (Cancelled)

26. (New) A capsule, comprising:

an envelope having a diameter of less than 100  $\mu\text{m}$ , and  
the envelope comprising at least three polyelectrolyte layers, with at least one of these three polyelectrolyte layers being labeled with at least one dye.

27. (New) The capsule as claimed in claim 26, wherein two of the three polyelectrolyte layers are in each case labeled with different dyes, with the two polyelectrolyte layers which are labeled with the different dyes being separated from each other by at least the third polyelectrolyte layer which is not labeled with dyes.

28. (New) The capsule as claimed in claim 27, wherein the third polyelectrolyte layer, which is not labeled with dyes, has a thickness of between 0.1 nm and 10 nm.

29. (New) The capsule as claimed in claim 28, wherein the third polyelectrolyte layer, which is not labeled with dyes, is a sensitive layer which either swells or shrinks, with its thickness thereby being altered, when its environmental conditions change.

30. (New) The capsule as claimed in claim 29, wherein the environmental conditions are pH, salt concentration, and temperature.

31. (New) The capsule as claimed in claim 27, wherein the different dyes are a dye of higher absorption energy (donor) and a dye of lower absorption energy (acceptor).

32. (New) The capsule as claimed in claim 31, wherein the different dyes are coordinated with each other such that it is possible for a Förster (fluorescence)

resonance energy transfer (FRET) to take place between the different dyes.

33. (New) The capsule as claimed in claim 27, wherein additional polyelectrolyte layers, which are not labeled with dyes, are located between the polyelectrolyte layers which are labeled with the different dyes.
34. (New) The capsule as claimed in claim 29, wherein the sensitive layer is an organic polyelectrolyte layer.
35. (New) The capsule as claimed in claim 26, wherein the dye is covalently linked, at high concentration, to a sensitive material.
36. (New) The capsule as claimed in claim 35, wherein the sensitive material is a material which either swells or shrinks, with its volume thereby being altered, when its environmental conditions change.
37. (New) The capsule as claimed in claim 36, wherein the environmental conditions are pH, salt concentration, and temperature.
38. (New) The capsule as claimed in claim 35, wherein the concentration of the dye is so high that the dye forms dimers, aggregates or excimers with itself, which latter lead to self-quenching of the fluorescence or to the formation of a new emission band.
39. (New) The capsule as claimed in claim 35, wherein the concentration of the dye satisfies the relationship mass of sensitive material:mass of dye < 500:1.
40. (New) The capsule as claimed in claim 35, wherein the dye-labeled layer has a thickness of from 1 nm to 1  $\mu$ m.
41. (New) The capsule as claimed in claim 35, wherein the polyelectrolyte layer which is labeled with dyes is an organic polyelectrolyte layer which is labeled with

dyes.

42. (New) The capsule as claimed in claim 26, wherein the dyes are fluorescent dyes or emitting nanoparticles.
43. (New) The capsule as claimed in claim 26, wherein the capsule is hollow and macromolecules are located within the internal space which is delimited by the envelope.
44. (New) The capsule as claimed in claim 26, wherein the envelope is permeable to molecules of up to a given size.
45. (New) The capsule as claimed in claim 26, wherein the capsule possesses a solid core which is surrounded by the envelope.
46. (New) The capsule as claimed in claim 26, wherein the capsule has an average diameter of less than 10  $\mu\text{m}$ .
47. (New) The capsule as claimed in claim 26, wherein the capsule is prepared by the layer-by-layer method.
48. (New) The capsule as claimed in claim 26, wherein the capsule is used for labeling or coding industrial products, particles, cells, tissues, organs or organisms of biological origin.
49. (New) A composition for identifying or labeling substances, comprising at least two types of different capsules as claimed in claim 1.
50. (New) The composition as claimed in claim 49, comprising at least three types of different capsules as claimed in claim 1.